



Chapter 11

Monopolistic Competition and Oligopoly

Chapter Objectives

- Characteristics of monopolistic competition
- Normal profit in the long run
- Characteristics of oligopoly
- Game theory
- The oligopolist's kinked demand curve
- Collusion among oligopolists
- The effects of advertising

Monopolistic Competition

- Large number of sellers
 - Small market shares
 - No collusion
 - Independent action
- Differentiated Products
 - Product attributes
 - Service
 - Location
 - Brand names and packaging
 - Some control over price

Monopolistic Competition

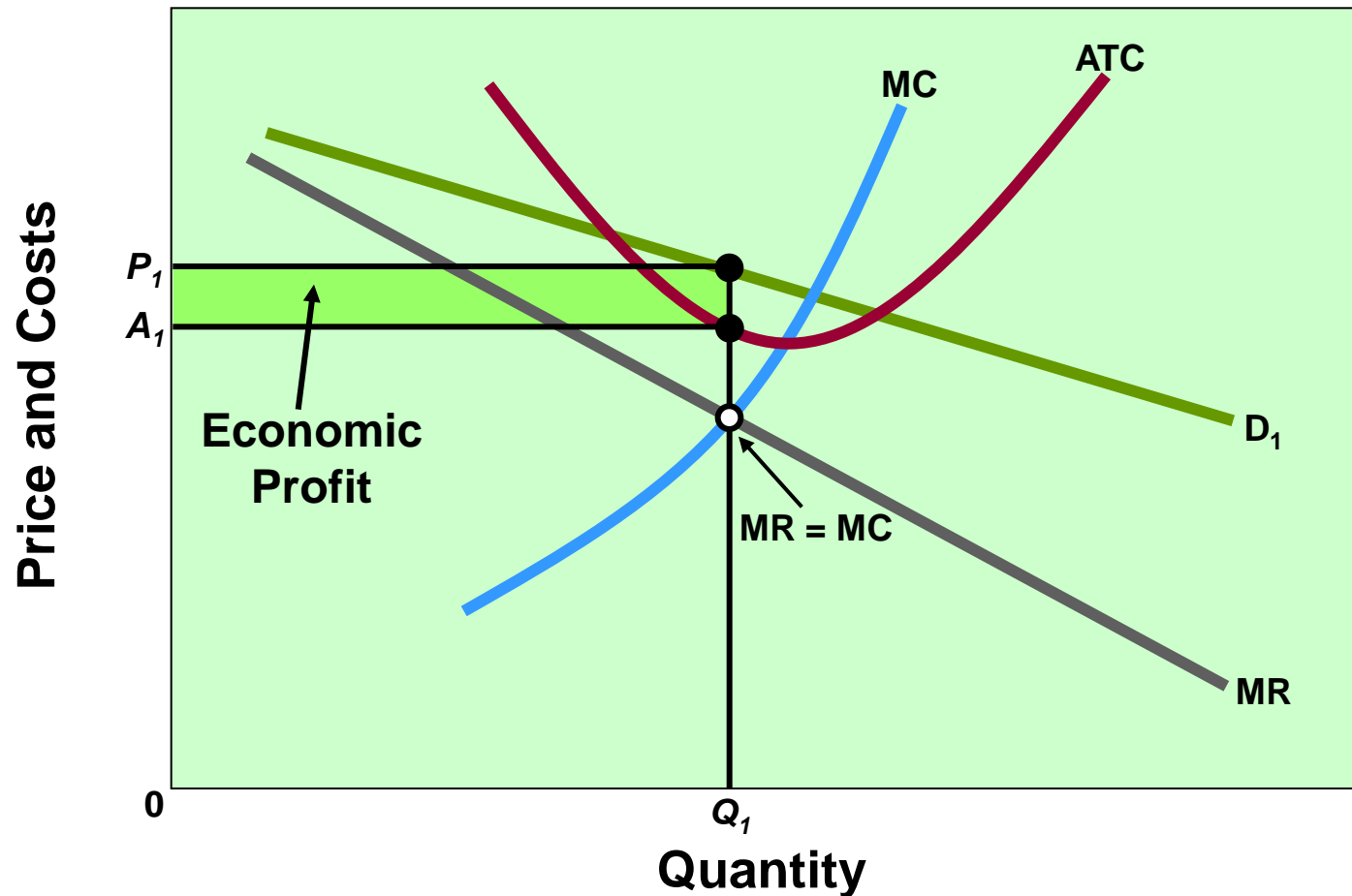
- Easy entry and exit
- Need for advertising
 - Nonprice Competition
- Which industries?
 - Degree of concentration
 - Four-firm concentration ratio
 - Herfindahl index

Monopolistic Competition

- Firm's demand curve
 - Highly elastic
- Short run profit or loss
 - Produce where $MR=MC$
- Long run normal profit
 - Entry and exit
- Inefficient
- Product variety

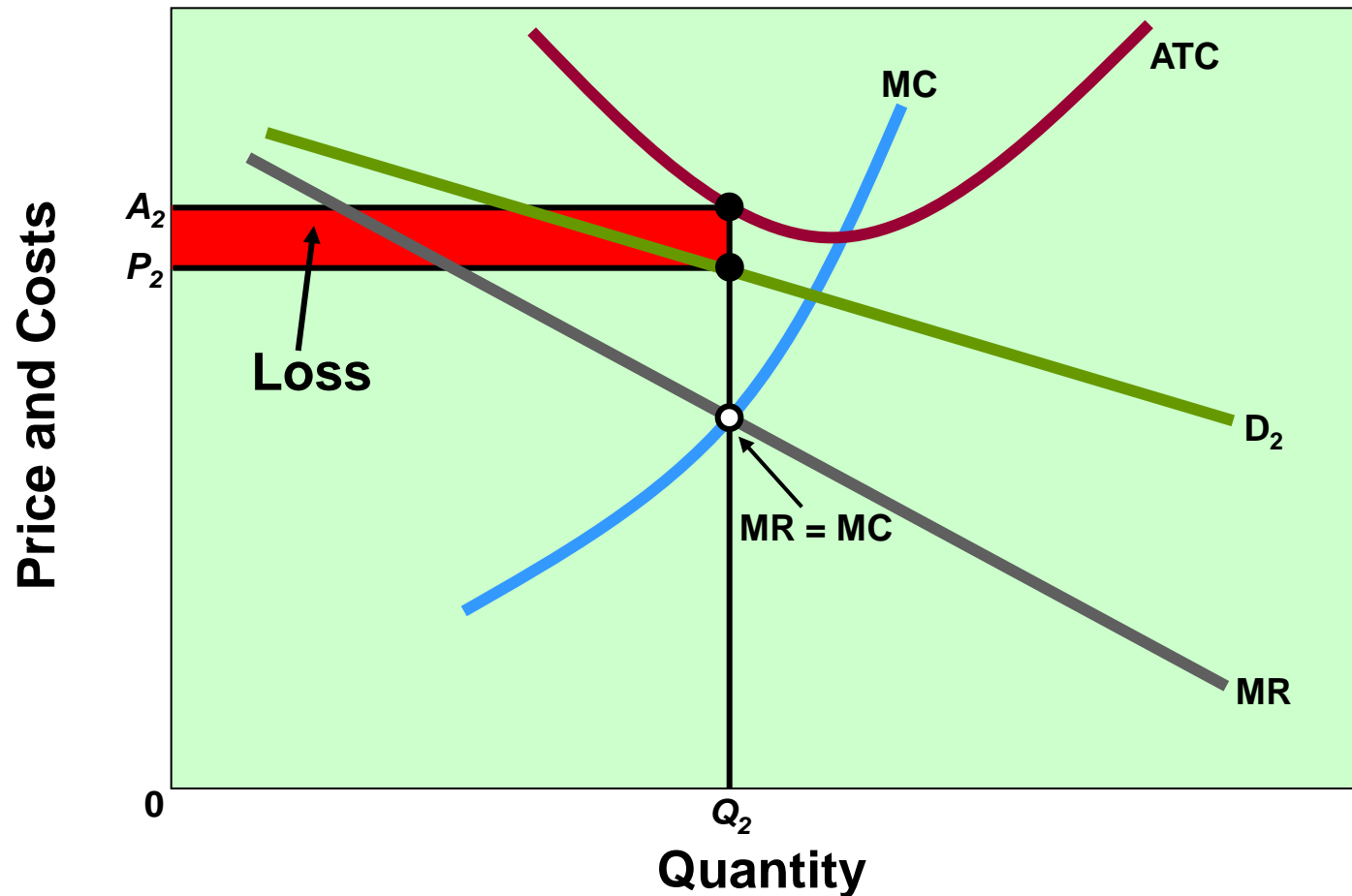
Monopolistic Competition

Short-Run Profits



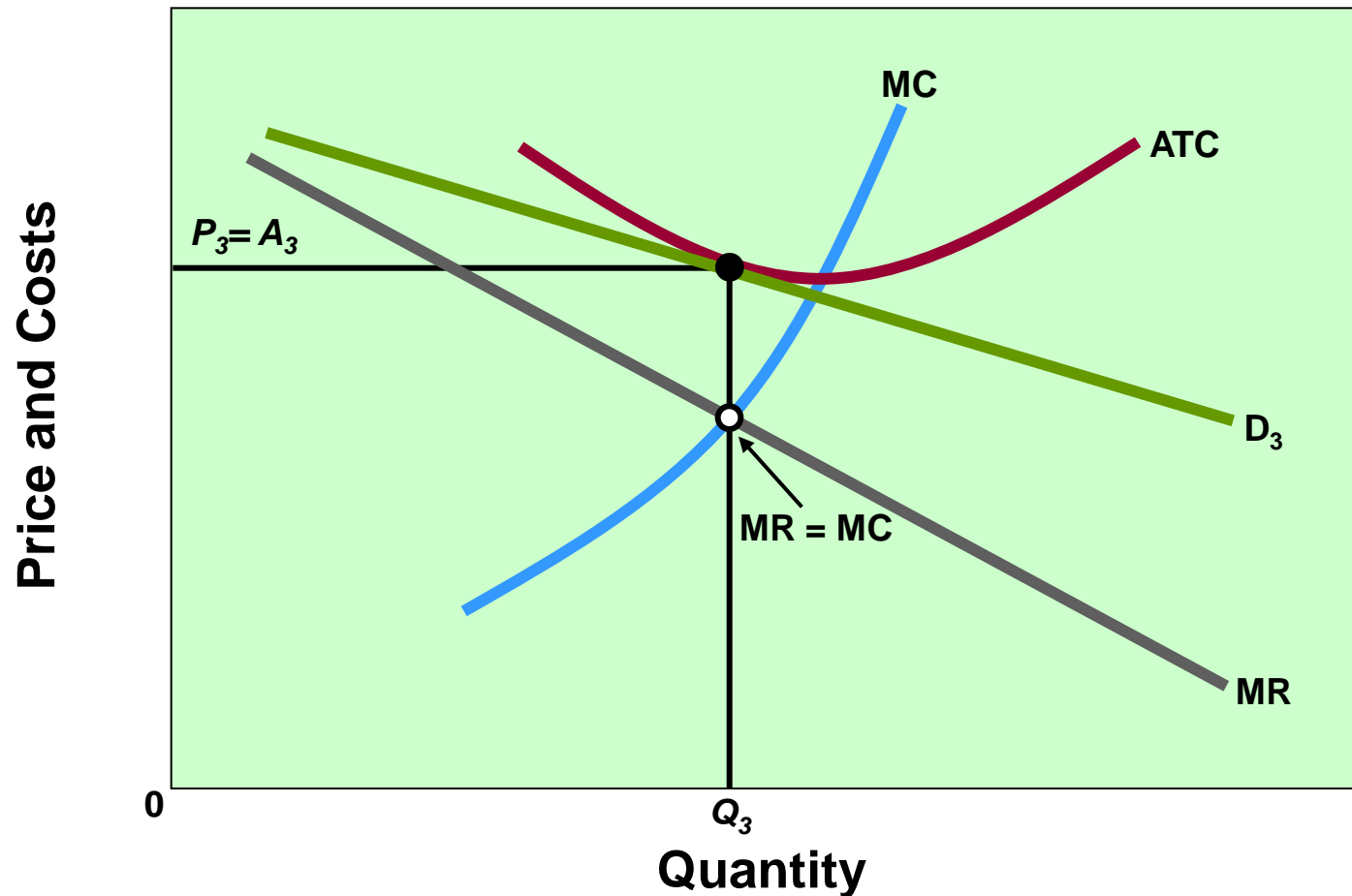
Monopolistic Competition

Short-Run Losses



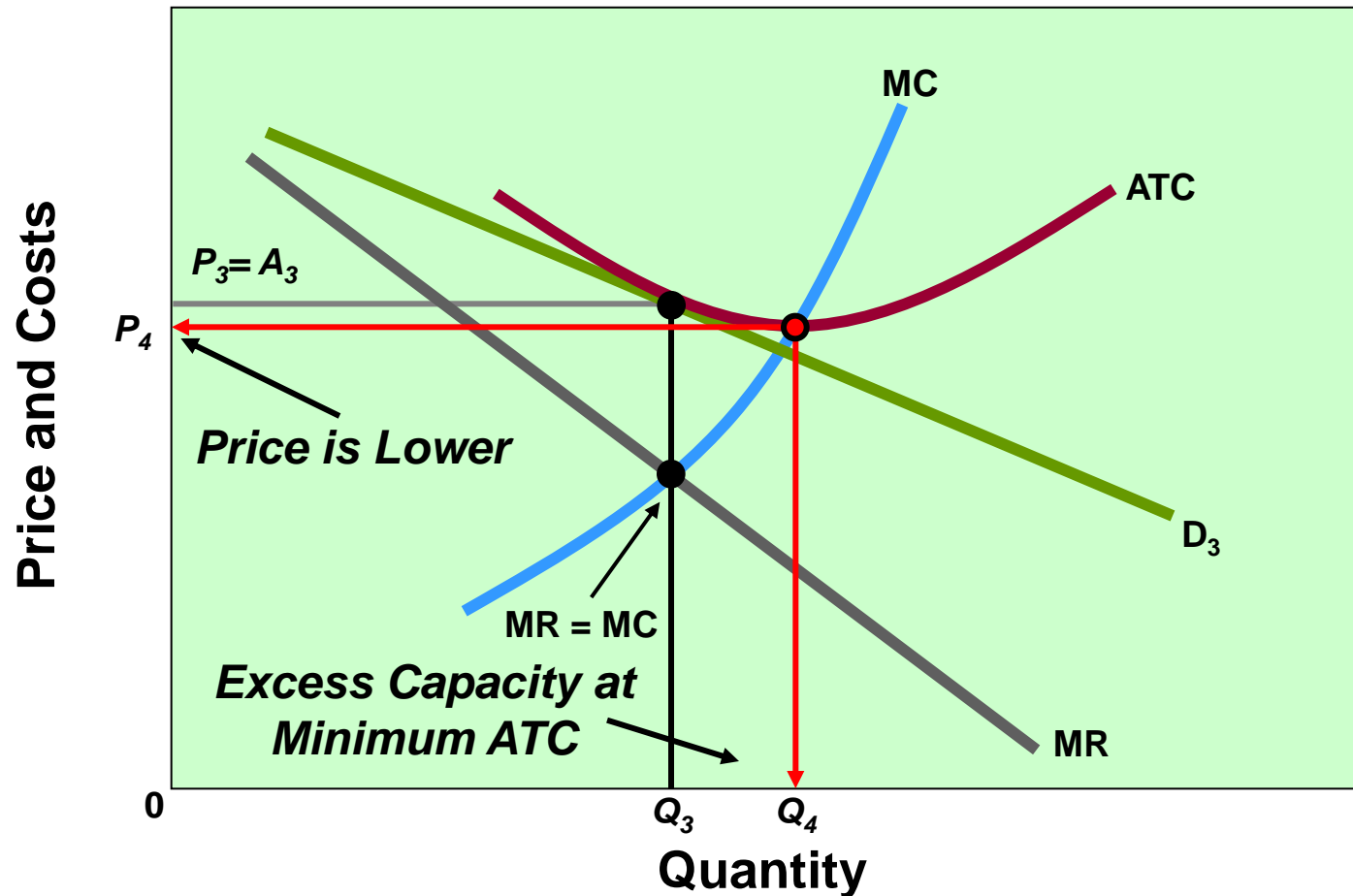
Monopolistic Competition

Long-Run Equilibrium



Monopolistic Competition

$P=MC=\text{Min ATC}$ for pure competition (recall)



Monopolistic competition is not efficient

Oligopoly

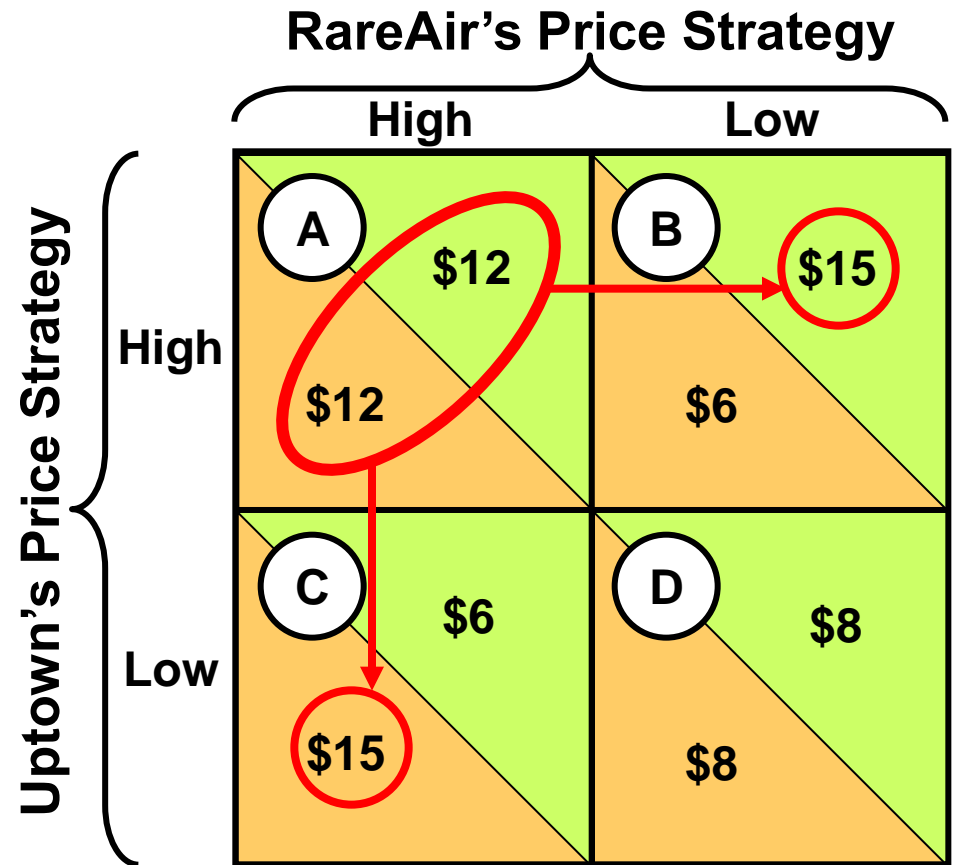
- A few large producers
- Homogeneous or differentiated products
- Control over price
 - Mutual interdependence
 - Strategic behavior
- Entry barriers
- Mergers

Oligopoly

- Four-firm concentration ratio
 - Needs to be more than 40%
 - Half of U.S. manufacturing
- Localized markets
- Interindustry competition
- World trade
 - Import Competition
- Herfindahl index

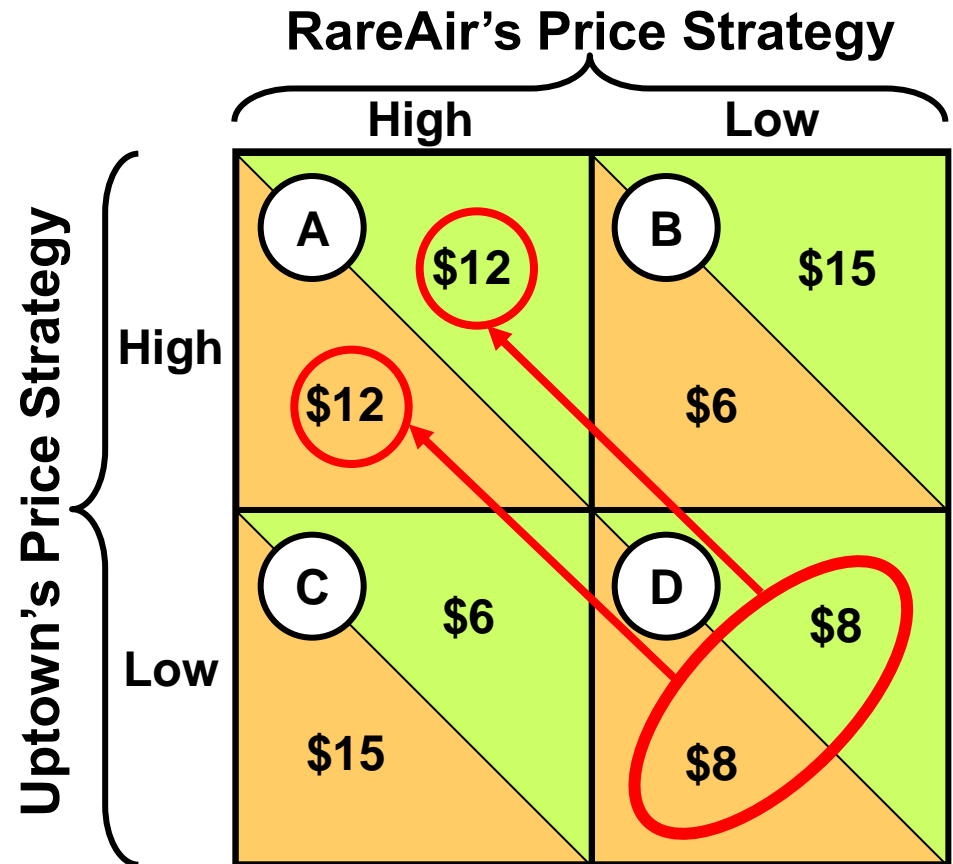
Game Theory

- 2 competitors
- 2 price strategies
- Each strategy has a payoff matrix
- Greatest combined profit
- Independent actions stimulate a response



Game Theory

- Independently lowered prices in expectation of greater profit leads to the worst combined outcome
- Eventually low outcomes make firms return to higher prices



Game Theory

- Mutual interdependence
 - Pricing policy
- Collusion
 - Enhances profit
- Incentive to cheat
- Prisoner's dilemma

Three Oligopoly Models

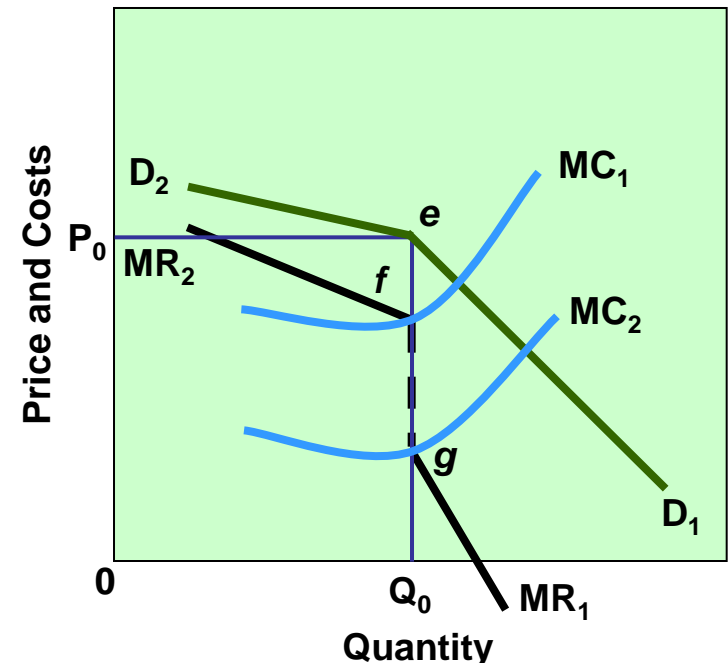
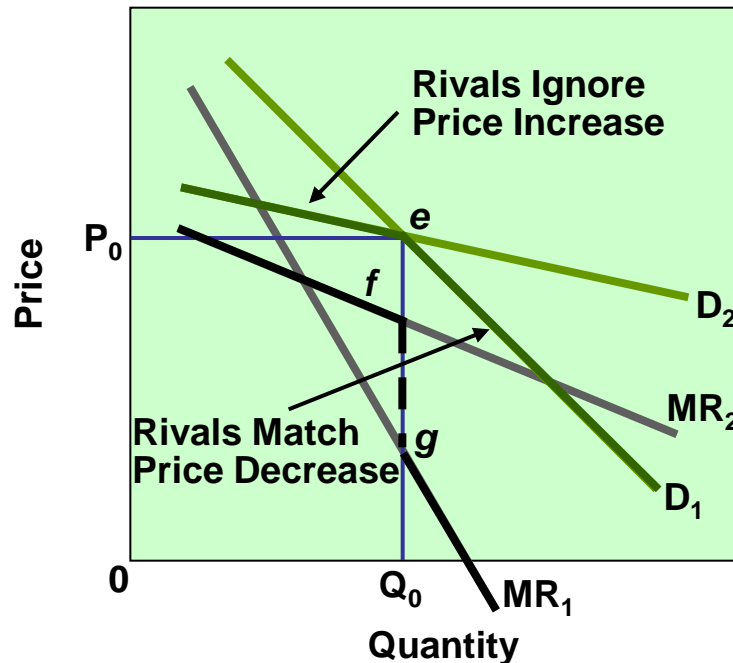
- Kinked-demand curve
- Collusive pricing
- Price leadership
- Why three models?
 - Diversity of oligopolies
 - Complications of interdependence

Kinked-Demand Curve

- Noncollusive oligopoly
- Strategies
 - Match price changes
 - Ignore price changes
- Combined strategy
- Price inflexibility
- The kinked-demand curve

Kinked-Demand Curve

Competitor and rivals strategize versus each other
Consumers effectively have 2 partial demand curves
and each part has its own marginal revenue part



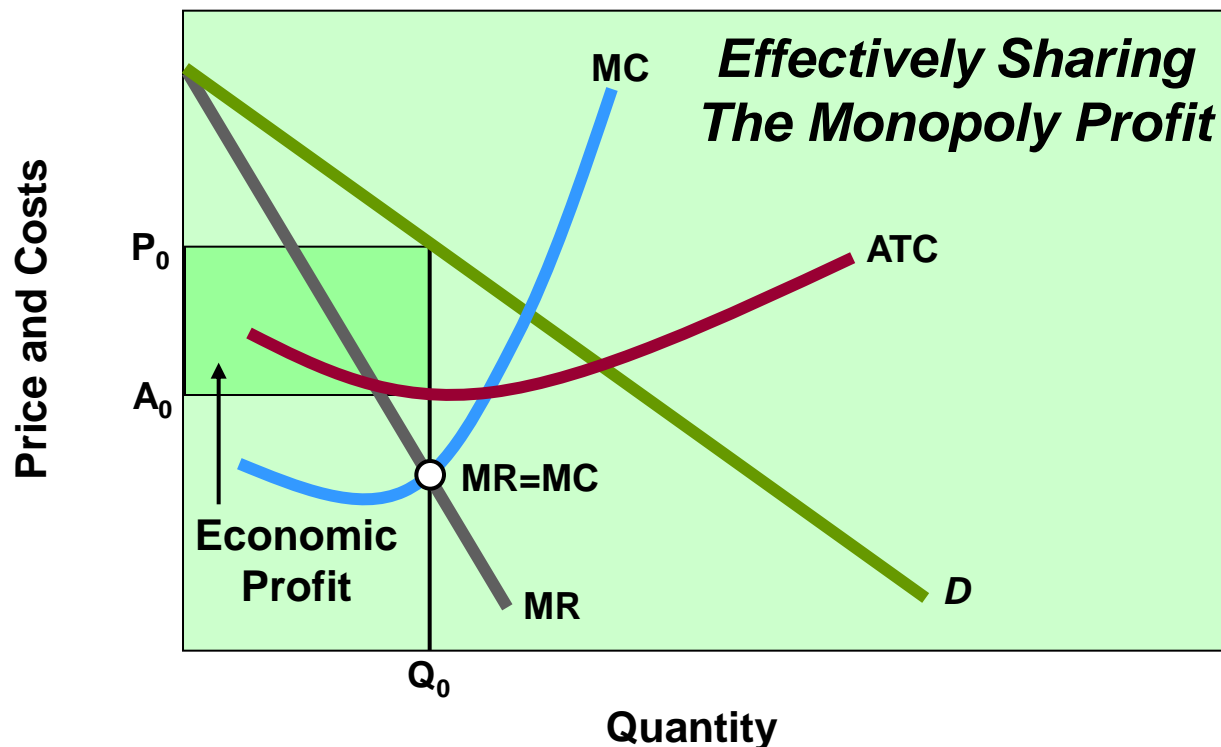
***Resulting in a kinked-demand curve
to the consumer – price and output
are optimized at the kink***

Kinked-Demand Curve

- Criticisms of the model
 - How does price get to P_0
 - Explains inflexibility, not price
 - Prices are not that rigid
 - Price wars

Cartels and Other Collusion

- Price and output
 - Joint profit maximization



The OPEC Cartel

Daily oil production (barrels) , November 2008

Saudi Arabia	8,904,000
Iran	3,843,000
Kuwait	2,538,000
Venezuela	2,368,000
Iraq	2,297,000
Nigeria	2,183,000
UAE	2,117,000
Angola	1,804,000
Libya	1,737,000
Algeria	1,417,000
Qatar	848,000
Indonesia	843,000
Ecuador	530,000

Source: A. T. Kearney, Foreign Policy

Cartels and Other Collusion

- Covert collusion
 - Tacit understandings
- Obstacles to collusion
 - Demand and cost differences
 - Number of firms
 - Cheating
 - Recession
 - Potential entry
 - Legal obstacles: antitrust law

Price Leadership Model

- Leadership tactics
- Infrequent price changes
- Communications
- Limit pricing
- Breakdowns in price leadership:
 - Price wars

Advertising

- Prevalent in monopolistic competition and oligopoly
- Capture market share
- Better than a price cut
- Information for consumers
- Manipulation

Oligopoly and Advertising

The Largest U.S. Advertisers, 2006

Company	Advertising Spending Millions of \$
Proctor and Gamble	\$4898
AT&T	3345
General Motors	3296
Time Warner	3089
Verizon	2822
Ford Motor	2577
GlaxoSmithKline	2444
Walt Disney	2320
Johnson & Johnson	2291
Unilever	2098

Source: Advertising Age

Oligopoly and Advertising

World's Top 10 Brand Names, 2007

Coca-Cola
Microsoft
IBM
General Electric
Nokia
Toyota
Intel
McDonald's
Disney
Mercedes-Benz

Source: Interbrand

Oligopoly and Efficiency

- Not productively efficient
- Not allocatively efficient
- Tendency to share the monopoly profit
- Qualifications
 - Increased foreign competition
 - Limit pricing
 - Technological advance

Oligopoly in the Beer Industry

- From hundreds to a few firms
- Demand side changes
 - Taste shifts to lighter beers
 - Shift from tap to cans or bottles
- Supply side changes
 - Technological change increased minimum efficient scale
 - National brands enjoy cost advantages
- Consolidation into oligopoly

Key Terms

- monopolistic competition
- product differentiation
- nonprice competition
- four-firm concentration ratio
- Herfindahl index
- excess capacity
- oligopoly
- homogeneous oligopoly
- differentiated oligopoly
- strategic behavior
- mutual interdependence
- interindustry competition
- import competition
- game theory
- collusion
- kinked-demand curve
- price war
- cartel
- price leadership

Next Chapter Preview...

Technology, R&D, And Efficiency